# Plugging in the Knowledge Worker

One of the most comprehensive of the five office automation field trials under the Canadian Office of the Future program, was launched in June, 1984 after almost a full year of planning.

The site chosen was in the policy sector of the Department of Communications, an organization responsible for initiating, studying and analysing major policy issues in the Canadian telecommunications and broadcasting environment. Seventy-six intelligent workstations were installed, but not all of them on the desks of staff or middle management. Terminals also sprouted on the desks of senior managers in the department.

The planning was thorough. Mary Meloshe, director of the trial, said that for the first time, planners and users took a hard look at how information is actually created and communicated through the organization, a necessary first step. "Most vendors and systems suppliers don't understand how large organizations function," Ms. Meloshe says. "Indeed, managers themselves are often unaware of the intricacies of the process, since so much of it is usually carried out by support staff. As a result, it is rare that off-the-shelf equipment or systems can meet organizational needs entirely.

"One of the most satisfactory results of the planning process was watching how user requirements influenced the evolution of the specifications of the system," Ms. Meloshe says. "Canadian equipment suppliers learned first to examine the organization and flow of information, and to rely on the expertise of knowledgable people in the office itself, before tailoring system architecture to user needs."

A particular requirement was for full bilingual functionality, since it is a matter of Canadian government policy to provide services in both English and French, the official languages of Canada.

Comterm, Inc. of Pointe Claire, Quebec, a major Canadian high technology company, was chosen as the supplier.

## System architecture and functions

In brief, the system architecture looks like this: Each of the 76 workstations, IBM compatible personal computers manufactured by Comterm, has 640 K local storage and a disk drive and is equipped with a bilingual keyboard. They are linked by a local area network (LAN) to two file servers which store central applications software and corporate files. Each server has 137 mb storage facility. The system is menu driven, and a user selects English or French at the first prompt. From that point, all functions and "talk-back" are in the language chosen.

Functions include:

- text processing,
- spreadsheet programs,
- file management, including user definable files, and the ability for more than one person to work on a single document,
- personal productivity software (any IBM compatible software will operate at any terminal),
- Messaging, in which a user can send an individual message to any other terminal, create distribution lists for messages, attach documents, and ensure confidentiality,
- Graphic communications, using Canadian-developed Limicon videotex software, for the creation and display of videotex text and images,
- Document and task management, which supports document tracking, approvals, BF (bring forward) and statistics-keeping for correspondence, a feature particularly important, given the nature of the organization,
- Calendaring. The ability to automate the scheduling of meetings by computer met with some user resistance (those who wanted the choice of when they would be available for meetings left to them, rather than the machine) and was abandoned in favour of a more simple electronic calendar/agenda function,
- Electronic archiving, which supports information storage and retrieval,
- External communication to public databases (restricted to certain terminals only),
- Text transfer with AES word processors.

Ms. Meloshe reports that user acceptance is extremely high, with average terminal use in the core group of users running between four and five hours a day. Word processing, spreadsheets, messaging and archiving seem to be the most frequently used features, but one of the most valuable has turned out to be the document and task management feature. Essentially, it supports a traditional document routing and approval process which had been well-established in its paper-based counterpart, mirroring the existing way in which information was managed. "It's when one sees the success of this kind of feature, that one realizes the tremendous advantage of knowing precisely how the organization manages information, before designing the system," she says.

She attributes the positive attitude on the part of users to the degree of consultation, training and user support provided. Although several people had used terminals before the system was installed, keyboard skills were generally non-existant, and there was a certain amount of apprehension. Training took the form of workshops and peer group sessions, and one-on-one sessions for senior managers. Experts were also available to help users at their workstations.

"One of the things we discovered when we began is that everyone was new to this field. We kept coming across major issues, the significance of which we didn't realize at the outset, such as office layout, physical installations, acoustics, wiring, lighting requirements – the list is a long one.

"The trial itself was precisely what it was intended to be, a learning process, whereby both the organization and the system supplier were able to grapple with and solve some of the major office automation issues."

Ms. Meloshe says that the keys to success were the high level of user support and the high degree of commitment from senior management at every step, "something which is absolutely necessary in a major program of this nature."